

# FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: Carroll County BOE

> Prepared By: Jim Strong MFC

Time Period Covered by This Plan: 2012 - 2021

Date Plan Prepared: 2012-02-15

Plan Type: Stewardship / Stewardship

This plan was developed in accordance with the rules of the Stewardship program.

**Property Name: S16-T17N-R5E** 

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## LANDOWNER INFORMATION

Name: Carroll County BOE

Mailing Address: P O Box 256

City, State, Zip: Carrollton, MS 38917 Country: United States of America

Contact Numbers: Home Number:

Office Number: 662-237-9276

Fax Number:

E-mail Address:

Social Security Number (optional):

## FORESTER INFORMATION

Name: Jim Strong, Service Forester

Forester Number: 00898 Organization: MFC

Street Address: P O Box 95

City, State, Zip: Carrollton, MS 38917

Contact Numbers: Office Number: 662-237-6732

Fax Number:

E-mail Address: jstrong@mfc.state.ms.us

## PROPERTY LOCATION

County: Carroll Total Acres: 593 Latitude: -89.78 Longitude: 33.34

Section: 16 Township: 17N Range: 5E

## DISCLAIMER

This information was derived from a small sampling of the forest resources. It reflects a statistical estimation that is only intended to be accurate enough for the purposes of making decisions for the short-term management of these resources. These estimations are temporally static. Events and circumstances may occur within the survey area that will physically alter the forest resources and therefore will not be reflected in this plan.

## INTRODUCTION

This Forest Stewardship Management Plan will serve as a guide for accomplishing the goals and objectives for your property. In addition to addressing your specific goals and objectives, this plan includes recommendations for maintaining soil and water quality and protecting your forest from insects, disease, and wildfire. Recommendations are based on observation and assessment of the site.

## **OBJECTIVES**

#### Timber Production

The goal is to produce high quality sawtimber. This will be accomplished through reforestation and timber stand improvement practices such as herbicide applications, prescribed burning, thinning at specified intervals, and other silvicultural practices. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

## Wildlife Management - General

The goal is to provide a diversity of habitats suitable for a variety of game and non-game wildlife species. Habitat management will focus on developing a variety of food, cover, water, and space. This will be accomplished by establishing and maintaining access roads and firelanes, providing openings within the forest, and the management of trees located within the Streamside Management Zone

## PROPERTY DESCRIPTION

## General Property Information

This section of 599 acres is located in the city limits of Vaiden Mississippi in the South Eastern part of Carroll County. Interstate 55 and US Hwy 35 runs through this section. Most of the section is leased for Commercial Purposes-such as Truck Stop, Gas Stations, Stores, Carroll County Correctional Jail, Stuckeys, etc... The entire section is in the City Limits of Vaiden Mississippi. Loblolly pine plantations have been established on all land that is classifed as Forest Land.

#### Water Resources

The drainages of this section are in the Pelucia Creek watershed. Pelucia Creek is a tributary of the Yazoo River. The objective is to protect, preserve and enhance all water sources and drainages on or transecting the property. Mississippi Best Management Practices will be implemented during all aspects of the management of this property to minimize the impact on water resources.

There is a small body of water which is approximately 2 acres in size that is located along the North Line on the West side of the section. This water is backed up on the section from the adjoining landowner's lake and over the past several years has killed the standing school timber.

The BOE will have to settle this water problem with the adjoining landowner before loblolly pines can be replanted.

### Timber Production

The goal is to maximize the production of high quality timber. This will be accomplished through the application of timely thinning and other silvicultural practices designed to enhance timber quality and growth. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

### Threatened and Endangered Species

No threatened and endangered species were identified during the reconnaissance and evaluation of your property.

#### *Interaction with Surrounding Property*

Prescribed practices should be carried out in a manner that will minimize adverse impacts on surrounding properties. Consideration should be given to potential air, water, visual, and other impacts. In addition, practices carried out should have positive effects on the surrounding community such as improved wildlife habitat and soil stabilization.

## Soils General

Soils were evaluated on the property to determine the suitability of the site for the proposed activities. Forest practices were planned so as to minimize erosion or other adverse effects on the soil. The following soils are identified for this property: Lorring Silt Loam, Providence Silt Loam, Smithdale Sandy Loam and Adler Silt Loam. For a complete description of these soils, please see the Soil Type Section of this plan.

## Archeological or Cultural Resources

No Archeological and Cultural Resources were identified during a reconnaissance of the property.

If any Archeological and/or Cultural Resources are discovered during the management of this property, immediate management practices will be applied.

## GENERAL PROPERTY RECOMMENDATIONS

#### Forest Protection

A vigorous growing stand is the best defense to an attack from a variety of forest insects, plants and pathogens.

## Insects and Diseases

Trees are subject to attack from insects and diseases. Different insects and diseases affect trees according to the age, species, and condition of the trees. Planted stands of pines and pure stands of hardwoods are particularly susceptible to attack. Since there are many different insects and diseases, no attempt will be made here to explain all of them. The property should be inspected at least annually for possible signs of insect and disease activity. Some things to look for are:

- Unseasonable leaf fall
- Discoloration of leaves or needles
- Pitch pockets on pine trees
- · Heavy defoliation of hardwood leaves
- Groups of three or more dying trees within a stand

This list does not cover all instances of insect or disease attacks. If anything unusual is noticed, report it to a forester. In most cases, insect and disease problems can be controlled if discovered early.

#### Fire Protection

The Mississippi Forestry Commission will establish and maintain all firebreaks around the property and other forest management areas on the property. These firebreaks will help to protect your property from wildfires. All firebreaks will be established and maintained according to Mississippi Best Management Practices.

## Grazing

Tree seedlings should be protected from grazing until such time as the terminal bud of the sapling is beyond reach of livestock. Domestic livestock should be denied access to the tree planting area.

## **Boundary Lines**

It is the responsibility of the landowner to ensure that all property lines and boundaries designating areas to receive forestry work are clearly identified and visible to all contractors.

**Note:** Some forest practices may cause temporary adverse environmental or aesthetic impacts. These practices will only cause short-term adverse impacts where they are installed. Special efforts will be made to minimize adverse effects when carrying out any of the practices. Examples include: site preparation, planting, prescribed fires, firebreak installation and maintenance, road installation and maintenance, pesticide applications and timber harvesting.

## Water Quality Protection

The objective of the landowner is to protect, preserve and enhance all water sources on or transecting the property. This can best be achieved by implementation of Best Management Practices in all aspects of the management of the property.

#### Aesthetics

The goal is to assure that the property is managed in such a way that is aesthetically pleasing to the landowner as well as the community. Activities could include, maintaining buffer strips along the road and adjacent to the home site, planting wildflowers along the road, and trees with attractive fall and spring color along the drive and near the home site.

With this section being located in the City Limits of Vaiden Mississippi, bufferstrips will be left along all highways to limit expsure to timber harvesting operations. The width of the timber to be left for buffers will determind by the Mississippi Forestry Commission prior to any timber harvesting.

## **Ecological Restoration**

Ecological restoration is the process of assisting the recovery of an ecosystem that has be degraded, damaged, or destroyed. A reconnaissance of the property has been conducted and no ecological restoration activities are recommended at this time.

## Wildlife Mgt. Target Species

The objective of this practice is to provide habitat best suited for the featured or target species. Habitat management will focus on providing food, cover, water, and space to facilitate the target species.

## Environmental Education

Environmental educational goals are to provide educational opportunities for children and adults through the development of items such as nature trails with tree identification markers, wildlife viewing areas, picnic areas, parking, public restroom facilities.

## Wildlife Management General

The goal is to provide a diversity of habitats suited for a variety of game and non-game wildlife species. Habitat management will focus on providing a variety of food, cover, water, and space. This will be accomplished, in part, by establishing and maintaining access roads and firelanes, providing openings within the forest, and leaving mast producing and den trees.

Only a small part of this section is leased for hunting which is approximately 200 acres , which involves two different hunting clubs.

Hunting is regulated due to the section being located in the city limits and especially because of the business and the County Jail. The hunting club members are very cautious with shooting deer and turkey which they mainly hunt.

## Timber Management

Timber management goals for this property are to manage timber resources in such a manner as to maximize timber production throughout the life of the stand.

#### Recreation

According to landowner objectives the recreational use of the property could prove to be an avenue for personal enjoyment or for generating income. An evaluation of your property should be conducted and a plan developed to accomplish your specific goals for recreational activities on your property.

## **SOIL TYPES**

5C2

The Loring component makes up 90 percent of the map unit. Slopes are 5 to 8 percent. This component is on uplands. The parent material consists of loess deposits. Depth to a root restrictive layer, fragipan, is 14 to 35 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 28 inches during January, February, March, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. Loblolly Site Index = 95.

#### 8C3

The Providence component makes up 90 percent of the map unit. Slopes ranes from are 5 to 12 percent. This component is on uplands. The parent material consists of silty loess over sandy marine deposits. Depth to a root restrictive layer, fragipan, is 18 to 38 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. Loblolly Site Index = 87.

## 10E2

The Smithdale component makes up 95 percent of the map unit. Slopes are 12 to 30 percent. This component is on hillslopes. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

#### 21

The Adler component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of silty alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

## **STRATA**

Strata 1

## Stand Description

This strata consists of the following stands: # 1, # 7, # 8, # 17, #18 and # 19 for a total of 53.63 acres. This loblolly pine plantation was established in January 1991 and is mainly pulpwood and chip-in-saw size timber with an average diameter of approximately 8.0 inches and has approximately 167 trees to the acre with an average merchantable height of 45 feet tall. This plantation was thinned in 2006 and now has an average basal area of 85 square feet and has 70 tons per acre.

## Stand Recommendations

This loblloly pine stand will be managed on a 35 year rotation using sound forestry managemement practices.

## **Activity Recommendations**

#### Harvest

This strata should be thinned in 2014 to a basal area of 75 square feet. Selective thinning method targeting poorer tree class and small diameter trees will be removed until the desired basal area of 75 square feet is achieved.

The thinning will allow the remaining trees to be released providing growing room that will allow the stand to reach full potential growth rate. Opening the canopy allows sunlight to reach the forest floor creating herbaceous vegetation providing habitat for native wildlife species.

No prescribe burning can be carried out due to Smoke Management concerns.

#### Harvest

In 2021, the stand will be 30 years old and might can be thinned for a 3rd time. This will depend on the growth from the last thinning. With rotation age set at 35 years old, this will give the plantation 4 to 5 additional years to grow if a light thinning is conducted. The trees to be removed would be selectively marked by the Mississippi Forestry Commission and a timber sale would be conducted.

The thinning will allow the remaining trees to be released providing growing room that will allow the stand to reach full potential growth rate. Opening the canopy allows sunlight to reach the forest floor creating herbaceous vegetation providing habitat for native wildlife species.

No prescribe burning can be carried out due to Smoke Management concerns.

## Strata 2

## Stand Description

This strata consists of the following stands: #3, #4, and #5 for a total of 141.52 acres. This strata is a loblolly pine plantation established in January 1992 that is mainly chip-n-saw and pulpwood size timber with an average diameter of approximately 8.1 inches and has approximately 132 trees and 95 tons to the acre with an average merchantable height of 42 feet tall with a current basal area of 85 square feet. This plantation was thinned in 2008.

## Stand Recommendations

This loblloly pine stand will be managed on a 35 year rotation using sound forestry managemement practices.

## **Activity Recommendations**

#### Harvest

This Strata should be thinned to a BA of 75 +/- in 2016. By selectively removing some of the pines, the thinning will allow more sunlight to reach the forest floor

which in return will allow the remaining pines to grow much faster into sawtimber size trees.

Aselective thinning method will be used to remove poorer tree stems and smaller stems untill the desired basal area of 75 square feet is achieved.

Native wildlife will benfit from this thinning becauce of the new growth of herbaceous vegetation created by more sunlight reaching the forest floor.

No prescribed burning can be conducted in this stand because of Smoke Management concerns.

#### Strata 3

## Stand Description

This strata consists of the following stand: #6, for a total of 4.75 acres. This strata is a 28 year old loblolly pine plantation that is mainly sawtimber and chip-n-saw size timber with an average DBH of approximately 12 inches and has approximately 100 trees to the acre. The averave total height is 52 feet and has 90 tons per acre. This stand is located beside a building on the school land and the land is not classifed as Forest.

This land has been used to store all types of equipment and junk. The junk is scattered throughout the stand and needs to be removed before the stand could be harvested.

Also, there is a factory and electric lines located around two sides of the stand with the trees hanging over the factory.

#### Stand Recommendations

The BOE will need to decided if they want to harvest this timber since the land is not classifed as Forest Land. The MFC will conduct a timber sale at that time in this strata. This timber would need to be sold at the same time that the timber in Strata 6 is sold also due to the small acreage in both strata.

No re-planting of trees is recommended for this strata until all the land in this strata and the surrounding land is classifed as forest land.

#### **Activity Recommendations**

#### Harvest

We will need to harvest all timber in the strata that will be re-classifed by conducting a timber sale. After bids are taken, the BOE can award the timber to the highest bidder. If the land is reclassifed, the Mississippi would recommend that the land be planted back in loblolly pine trees. The BOE will have to advise us to conduct a timber sale.

At the present time, native wildlife use this pine stand for nesting and refuge.

No burning can be carried out due to Smoke Management concerns.

#### Strata 4

## Stand Description

This strata consists of the following stands: # 9, and # 14 for a total of 59.24 acres. This strata is a loblolly pine plantation established in March 1997 that is mainly pulpwood size timber with an average diameter of approximately 5.7 inches and has approximately 220 trees to the acre with an average merchantable height of 37 feet with a volume of approximately 80 tons per acre with approximately 97 square feet of basal area to the acre.

This strata is located behind the Carroll County Regional Jail and all timber harvesting will need to be reported to the Sheriff of Carroll County because all trucks will have to be checked in and out of the compound.

#### Stand Recommendations

This loblloly pine stand will be managed on a 35 year rotation using sound forestry managemement practices.

## **Activity Recommendations**

#### Harvest

This Strata should be thinned to a BA of 75 +/- in 2017. By selectively removing some of the pines, the thinning will allow more sunlight to reach the forest floor which in return will allow the remaining pines to grow much faster into sawtimber size trees.

Native wildlife will benefit from this thinning because of the new growth of herbaceous vegetation created by more sunlight reaching the forest floor.

No prescribe burning can be carried out due to Smoke Management concerns.

#### Strata 5

## Stand Description

This strata consists of the following stand: # 13 for a total of 18.97 acres. The strata consists of hardwood pulpwood and sawtimber that is located in the bottom drainage and is used as a SMZ. These trees were established around 1965. There are approximately 160 trees per acre that have an average DBH of 12 inches with an average total height of 52 feet with approximately 60 tons per acre.

A lake from the adjoining landowner backs up on the school property and floods this timber and has killed some of the timber. This area is approximately 2 acres in size. The

BOE has leased the water area to the adjoining landowner as a recreational lease. No forest managementwork can take place with backed up into the timber.

#### Stand Recommendations

This stand will be managed on a 70 year rotation. No activities are planned for this stand for the next 10 years.

The BOE needs to have the adjoining landowner lower the water level from their lake and keep it lowered to keep the water from backing up on the school property and killing the timber.

## **Activity Recommendations**

## Harvest

Stand # 13 for a total of 18.97 acres will need the thinned when the adjoining pine stands # 9 and # 14 is thinned.

The hardwood trees to be harvested inside this SMZ will be marked with paint by the Mississippi Forestry Commission. Approximately 40% of the poorer quality hardwoods and smaller trees such as elm, hickory, maple, and other hardwood species will need to be removed.

The Mississippi Forestry Commission will make a determination of what trees will need to be removed prior to the timber sale in

#### Strata 6

## Stand Description

This strata consists of the following stand: # 15 for a total of 1.61 acres which is a small stand of approximately 450 pine trees surrounded by open grass land and is classifed as non forest and is leased. The pines were established in 1991 and they average 7.5 inches in diameter and are approximately 37 feet tall.

#### Stand Recommendations

This stand will need to be harvested when Strata 3 is harvested due to the small acreage. By combining the 2 Stratas, it will make a larger sale. The BOE will need to decide to harvest this timber or not since it is not classifed as Forest Land. The MFC will need to be notifed of the BOE decision.

No re-planting of trees is recommended for this Strata until the the surrounding land is classifed as Forest Land.

#### **Activity Recommendations**

#### Harvest

We will need to harvest all timber in the strata that will be re-classifed by conducting a timber sale. After bids are taken, the BOE can award the timber to the highest bidder. If the land is reclassifed, the Mississippi Forestry Commission would recommend that the land be planted back in loblolly pine trees.

At the present time, native wildlife use this pine stand for nesting and refuge.

No burning can be carried out due to Smoke Management concerns.

## OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

The property boundary line is painted around all 4 miles of the section of land in red paint at eye level mainly on hacked marks. and needs to re-painted approximately every 5 years.

#### Line Recommendations

The 4 miles of boundary lines will be repainted with red paint at eye level on the old hacked marks and all corners marked with a X to insure that the property boundaries are clearly identified.

## **Activity Recommendations**

**Property Activities** 

Routine inspections and general maintenance of the roads, Firelanes, and boundary lines will ensure overall appearance and aesthetics of the property.

All property lines will be remarked with red paint during the summer of 2011.

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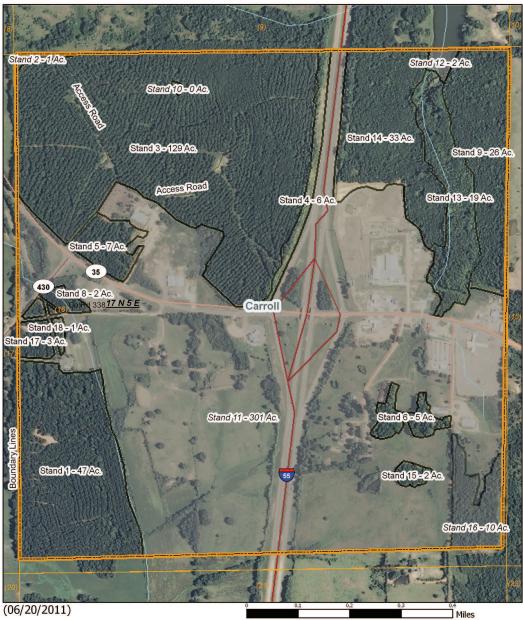
All property lines will be remarked with red paint during the summer of 2021.



## **S16 T17N 5E Carroll County BOE**

Vaiden 2012 to 2021 593.32 Acres





# S16 T17N 5E Carroll County BOE



Property (1)		
Category 1: Stands Chip-n-Saw (9) Sawtimber (2) Pulpwood (3)		
Category 3: Non-Forest Stands Non-Forest (5)		
Property Roads/Trails  Access Road (3)		
MFC Basemap  County Boundary  County Boundary (1)	Interstate Highways	MS Forest Habitat  DEEP LOESS HILLS AND BLUFFS (1)
Quadrangle Grid USGS Quad (1)	US/State Highways State Highway (4)	Physiographic Region  North Central Hills (1)
PLS Townships PLS Townships (1)	School Sections  School Sections (1)	Soil Associations providence-loring-collins (1)
Survey Districts District 2 (1)	Public School Districts CARROLL COUNTY SCHOOL DISTRICT (1)	Surface Geology  KOSCIUSKO (1)  ZILPHA/WINONA (1)
Blockgroup (Census 2000) Blockgroup (Census 2000) (2)	US Congressional District US Cong Dist #2 (1)	Recreational Facilities  Other (1)
Block (Census 2000) Block (Census 2000) (15)	MS Senate 14 (1)	MFC Districts  MFC Districts (1)
Tract/BNA (Census 2000) Tract/BNA (Census 2000) (1)	MS House 34 (1)	MFC Dispatch Units MFC Dispatch Units (1)
City Streets City Streets (2)	Intermittent Streams Intermittent Streams (2)	Incorporated Cities Incorporated Cities (1)
County Roads County Roads (1)	Hydrologic Units (Basins)  UPPER BIG BLACK RIVER (1)	MS Outline MS Outline (1)
3 Digit Highway  3 Digit Highway (1)	Historic Forest Boundary Loblolly/Shortleaf Pine-Oak (1)	

## Stand Activity Schedule for Carroll County BOE 16 17N 5E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2014					
1	1	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	47	\$1,645.00	\$15,044.70
1	7	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	1	\$24.15	\$220.87
1	8	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	2	\$66.85	\$611.39
1	17	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	3	\$102.90	\$740.88
1	18	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	1	\$35.00	\$291.00
1	19	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	1	\$35.00	\$252.00
3	6	Harvest, Mechanical, Final, Machine, Loblolly	5	\$175.00	\$5,528.20
6	15	Harvest, Mechanical, Final, Machine, Loblolly	2	\$70.00	\$409.20
		Yearly Totals	62	\$2,153.90	\$23.098.24
2016					
2	3	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	129	\$4,515.00	\$39,579.78
2	4	Harvest, Mechanical, Thin, Machine, Loblolly	6	\$210.00	\$1,840.92
2	5	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	7	\$245.00	\$2,147.74
		Yearly Totals	142	\$4.970.00	\$43,568.44
2017					
4	9	Harvest, Mechanical, Thin, Machine, Loblolly	26	\$910.00	\$5,253.04
4	14	Harvest, Mechanical, Thin, Machine, Loblolly	33	\$1,162.35	\$6,709.75
5	13	Harvest, Mechanical, Thin, Machine, Misc Hardwood	19	\$665.00	\$9,739.40
		Yearly Totals	78	\$2.737.35	\$21,702.19
2021					

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
1	1	Harvest, Mechanical, Thin, Machine, Loblolly	47	\$1,645.00	\$23,970.00
1	7	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	1	\$35.00	\$294.10
1	8	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	2	\$70.00	\$588.20
1	17	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	3	\$105.00	\$0.00
1	18	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	1	\$35.00	\$170.50
1	19	Harvest, Mechanical, 2nd Thin, Machine, Loblolly	1	\$35.00	\$632.00
		Yearly Totals	55	\$1.925.00	\$25.654.80
		Grand Totals	337	\$11.786.25	\$114,023.67